

PAVLOV, N., inzh. (Leningrad)

Electron-beam tubes with charge accumulators. Radio no. 6:23-25  
Je '62. (MIRA 15:5)  
(Cathode ray tubes)

PAVLOV, N., inzh. (Minsk); ARKUSH, N., inzh. (Riga); MIKK, E., mekhanik  
(Tallin); MYAGI, N. [Magi, N.], mekhanik (Tallin); LIBERMAN,  
V. (Lyubertsy Moskovskoy obl.); ZHURAVLEV, G., tekhnolog

Proposed, made, introduced. Izobr. i rats. no.8:12-13 Ag  
'62. (MIRA 15:9)

(Technological innovations)

ROZHDENSTVENSKIY, V.; PIVOV, N., master sporta; KHRABRYKH, Svetlana,  
sportemka 1 razryada

A student amateur club. Kryl.red. 12 no. 19-10 Je '62

(MIFA 1961)

1. Predsedatel' planernoy sekcii studentcheskogo samodeyatel'nogo kluba Kuybyshevskogo aviatsionnogo instituta (for Rozhdentvenakiy). 2. Rukovoditel' aviamodel'noy laboratorii studentcheskogo samodeyatel'nogo kluba Kuybyshevskogo aviatsionnogo instituta (for Pavlov).

PAVLOV, M. inzh.

Achievements of the East-German motorcycle industry. Za rul. 20  
no.5:16-17 My '62. (MIRA 16:4)

(Germany, East-Motorcycle industry)

PAVLOV, N., polkovnik v otstavke

Russian artillery in the battle of Borodino. Voen.vest. 42  
no.9:25-26 S '62. (MIRA 15:8)  
(Borodino, Battle of, 1812)

DAVLOV, N.

Morphological studies of the chronic interstitial pneumonia  
in sheep. Izv. Vsesoyuzn. nauch. ts. 1971-72, 12.

Morphology of the chronic interstitial pneumonia. Ibid.:  
99-128.

PAVLOV, N.; PETROVA, A.

Morphological changes in the experimental intoxication of rats  
with methyl alcohol and nicotine (separately or combined). Izv  
Vet inst virus 2:121-134 '69

PAVLOV, N.

Cheese without a crust. Izobr. i rats. no. 12:35 '43.

(MIRA 17:2)

1. Zamestitel' nachal'nika proizvodstvenno-tekhnicheskogo  
otdeleniya Upravleniya molochnoy promyshlennosti Soveta  
narodnogo khozyaystva BSSR, Minsk.



BABIY, Y.; ZYUBIN, S.; ANTYUKHOV, A.; KAMCHATOV, K.; DOLGOVA, L.; KASTOR-  
NOV, M., mekhanik; GOL'TSEV, M.; KUZ'MIN, I., mekhanik; PAVLOV, N.,  
mashinist kombayna; SMETANKIN, P., mashinist kombayna; SAFONOV, M.,  
mashinist kombayna; KOZLOV, N., brigadir gornorabochikh; BUYAK, I.,  
brigadir gornorabochikh; SOLDATOV, N., brigadir gornorabochikh

Not into the records but into practice. Sov.shakht. 12 no.12:17-  
18 D '63. (MIRA 17:3)

1. Shakhtoupravleniye No.3-25 tresta Donskoyugol' kombinata Tula-  
ugol'. 2. Nachal'nik shakhtoupravleniya No.3-25 tresta Donskoyugol'  
kombinata Tulaugol' (for Babiy). 3. Sekretar'partorganizatsii shakh-  
touppravleniya No.3-25 tresta Donskoyugol' kombinata Tulaugol' (for  
Zyubin). 4. Glavnyy inzh. shakhtoupravleniya No.3-25 tresta Donskoy-  
ugol' kombinata Tulaugol' (for Kamchatov). 5. Sekretar' komsomol'-  
skoy organizatsii shakhtoupravleniya No.3-25 tresta Donskoyugol'  
kombinata Tulaugol' (for Dolgova).

Veterinary Medicine

BULGARIA

PAVLOV, N., Dr, MAKAVEYEVA, E., Dr, VESSELINOVA, A., Dr, VIZPB/~~not~~  
~~identified~~

"Disease of New- Born lambs Caused By Neorickettsiae"  
Sofia, Veterinarna Sbirka, Vol 63, No 1, 1966, pp 3-6

Abstract: The virus abortion of sheep is a latent neorickettsiae infection. Lambs that are born alive exhibit symptoms of the infection. Tissues and organs of infected new- born lambs were subjected to a pathological, anatomic, and histologic investigation. Two strains of the causative factor were isolated and propagated in 6-day old chicken embryos on being injected into their yolk sac. The embryos perished on infection and showed presence of typical elementary bodies. Antigen obtained from chicken embryos had properties identical with those of antigen isolated from the placenta of aborting ewes. By using the antigen from chicken embryos, the reaction of complement fixation was carried out for diagnostic purposes.

1/1

Reliance on active membership. Radio no.10:7 0 '53.

(MIRA 6:10)

1. Leningradskiy gorodskoy radioklub Vsesoyuznogo dobrovol'nogo obshchestva  
sodeystviya armii, aviatsii i flotu.  
(Radio clubs)

PAVLOV, N., red.

[Views of Smolensk; an album] Vidy Smolenska . Al'bum. Smolensk,  
Smolenskoe knizhnoe izd-vo, 1959. 2 p., 30 plates.  
(MIRA 15:4)

(Smolensk---Views)

L 04484-67 FSS-2/EWT(1) TI/GW

ACC NR: AN6010454 (N) SOURCE CODE: UR/9008/66/000/080/0008/0008

AUTHOR: Ivanov, Ye. (Engineer); Pavlov, N. (Engineer)

ORG: none

TITLE: Lunar artificial satellite ✓

SOURCE: Krasnaya zvezda, no. 80, 06 Apr 66, p. 8, col. 1-7

TOPIC TAGS: lunar flight, lunar mission, lunar satellite, artificial satellite,  
*SATELLITE TRAJECTORY, GRAVITATION EFFECT*

ABSTRACT: The authors comment on the reconnaissance mission of the Luna-16 artificial satellite launched on 3 April 1966 and discuss the computation problems connected with the flight. Figures concerning launch, trajectory, and orbital velocity, and altitude are presented in the original article. The number of revolutions and altitude needed for a complete reconnaissance of the moon's surface are given with various alternatives, and are compared with those valid for the earth artificial satellites. The first and second flight stages deal with overcoming gravitation and setting the spacecraft in a trajectory toward the moon, while the third stage of the flight in which the retroacting power plant was actuated to slow down the vehicle and

Card 1/2

L 04484-57

ACC NR: AN6010454

set it into a computed lunar orbit is discussed in more detail, including the timing and power requirement for correcting deviations from the earth-moon section of the flight trajectory. Factors such as the gravity influence of the sun and other planets upon the satellite trajectory and the absence of lunar atmosphere are discussed. The authors also speculate about future use of artificial lunar satellites which, in addition to gathering information on the lunar mass, shape, surface, and surrounding space, are likely to include radio-relaying in long-distance communication systems including TV, replace, to a certain extent, the function of the earth's ionosphere and serve as orbital stations supplying moon explorers with necessary logistics. [KP]

SUB CODE: 22/ SUBM DATE: none/

Card

2/2

*egh*

24-2300 1160 1482 1456 1496 4016 30896  
S/180/61/000/005/006/018  
E194/E555

AUTHORS: Fogel, A.A. Pavlov, N.A. Korkin I V and Sidorova  
T.A. (Leningrad)

TITLE: Inductors for heating and melting metals in the  
levitated condition

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh  
nauk. Metallurgiya i toplivo, no. 5, 1961, 51-61

TEXT: The practice of heating levitated metals suspended  
freely in an electromagnetic field is increasing, but many  
practical problems remain unsolved. This article considers the  
influence of the frequency and configuration of the electro-  
magnetic field on the heating of a metallic body suspended in it.  
Expressions are written for the relationship between the electro-  
magnetic pressure on the levitated metal and the specific power  
transmitted to it. The formulae show that by altering the  
frequency and intensity of the magnetic field the electromagnetic  
pressure on the metal may be changed without altering the power  
transmitted to it. In the case of a freely-suspended metallic body  
the force applied by the field is equal to the weight of the body

Card 1/12

Inductors for heating and melting

30296  
S/180/61/000/005/006/018  
E194/E555

Thus, by altering the frequency it is possible to regulate the power transmitted to the metal and so its temperature. The effect is not strictly a surface one, as the metal has some 'transparency' to the field. Elementary consideration is therefore given to the case of induction heating of a metal plate in a longitudinal plane parallel magnetic field. Formulae are derived for the power transmitted per unit surface of plate, for the electromagnetic pressure on the plate and for the ratio of pressure to power. These expressions are used to construct the curves shown in Fig. 1 in which the power transmitted to the plate (curve 1), the electric field strength (curve 2) and the magnetic field strength (curve 3) are plotted as functions of field frequency with a constant electromagnetic pressure on the plate surface ( $F = \text{const}$ ) and constant plate thickness ( $d = \text{const}$ ). The depth of penetration of the electromagnetic energy  $\Delta = \sqrt{\rho / \pi \mu f}$  For a levitated

body the necessary electromagnetic force is determined by its weight. The power required for heating depends mainly on the temperature required because as there is no thermal insulation, thermal equilibrium is established very quickly, within two or three minutes. The graph of Fig. 1 shows that for a given body

Card 2/12

Inductors for heating and melting .

30896

S/180/61/000/005/006/018

E194/E555

with constant electromagnetic pressure applied to it the power increases with the frequency, so that to raise the temperature the frequency should be raised. The limiting frequency depends on the maximum permissible electrical field intensity at the body surface or on the associated voltage on the inductor. The maximum permissible electrical field intensity should be less than that which causes electrical breakdown and this depends on the properties of the gaseous medium surrounding the inductor. If, with constant electromagnetic pressure, the frequency is reduced then the magnetic field strength must be increased, that is to say, the inductor current must be increased. The limit in this case depends on the permissible current density in the inductor conductors. Thus for a metal body of given size there is a definite range of frequency within which the body can be suspended in the electromagnetic field. The choice of frequency depends on the temperature required and by altering the frequency within this range it is possible to control the limiting temperature of the metal whilst maintaining it in the levitated condition. When a fixed metal body is heated by induction there is a direct

Card 3/12



Inductors for heating and melting .

30896

S/180/61/000/005/006/018

E194/E555

relationship between the power applied to the inductor and that transmitted to the body. But in the case of a body of levitated metal an allowance must be made for the configuration of the field set up by the inductor, because the configuration determines the nature of the relationship between the power applied to the inductor and that transmitted to the metal. The power transmitted to the metal body is related to the pressure applied to it by the magnetic field. Both the power and the electromagnetic pressure depend upon the magnetic field intensity at the body surface. If the body is levitated, the vertical component equals the weight of the body and the horizontal is zero. Evidently to support the weight of a freely suspended metal body the field intensity under the body should be greater than that above it. In a more uniform field a higher overall field intensity is necessary to support the body. Thus a greater power is transmitted to the body in the more uniform field. If the power applied to the inductor is altered, the position of the body may alter. If it moves vertically but without any change in the field at its surface there will be no change in the power transmitted to the body. Whereas

Card 4/12

30896

Inductors for heating and melting . . . S/180/61/000/005/006/018  
E194/E555

if in moving vertically it passes from a field of one configuration to that of another, then as the power applied to the inductor is increased, that transmitted to the body may increase or decrease, depending upon the configuration of the field. A brief analysis is then made of the field between the two conductors with current flowing in opposite directions. The force acts perpendicular to the direction of the magnetic field, so it is the horizontal component of the field that governs the vertical thrust that supports the body, whilst the lateral component of the field causes only a compression of the body. Thus, if the ratio of the horizontal to the vertical component is low, the plate is suspended at a lower level and a greater power is transmitted to it. Further consideration shows that, in the case of a single-loop inductor, as the power applied to the inductor is increased and the metallic body rises, the power transmitted to it first decreases and then rises again. It is important that the metallic body suspended in the field should have lateral stability, which is not achieved in the simple cases so far considered. The inductors of practical interest are those in which the metal can hang stably in the field.

Card 5/12

Inductors for heating and melting

<sup>30896</sup>  
S/180/61/000/005/006/018  
E194/E555

The metallic body is displaced from a region of strong field to one of weak field, or, as it were, rolls down a 'hollow' in the field. Inductors for melting levitated metals may be classified into three types according to the relationship between the power transmitted to the body and the power applied to the inductor. One type consists of two co-planar rings connected in parallel with currents flowing in opposite directions. In a particular case the rings were of 120 and 210 mm internal diameter and the suspended metal was a disc of 150 mm diameter weighing 460 g. The outer coil was used to stabilise the disc. As the disc moves vertically the field at its surface remains constant, it is horizontal at the lower surface and zero at the upper because the disc thickness is much greater than the depth of penetration of the field. Thus the power applied to the body should remain constant and this is in fact found to be the case. The second type of inductors are those shaped like a boat or cradle consisting of two vertical coils connected in parallel and shaped like a cradle. The ends of the inductor are bent vertically upwards to make the suspended cylindrical body stable in the axial direction. With an inductor of this

Card 6/12

Inductors for heating and melting

30396

S/180/61/000/005/006/018  
E194/E555

type an increase in the power applied to the inductor reduces the power absorbed by the body. Only after the body has risen a considerable distance above the lower conductors is there an appreciable increase in the power intake of the metal. The third type of inductor again has two vertical loops but one is cross-connected, so that whereas in the second type the upper pair of conductors both carry current in the same direction, in this type diametrically opposite conductors carry current in the same direction. In this type of inductor the metal body undergoes symmetrical compression by the electromagnetic field. As the power applied to the inductors is increased, the field intensity at the body surface increases on all sides and so the transmitted power increases. Comparison of test results for similar specimens at a frequency of 2 500 c/s shows that for a given power applied to an inductor of this cross-connected type, the maximum power transmitted to the body is at least four times greater than that of the 'cradle' type. Thus the cross-connected type should be used to produce high temperatures. The design of inductors for melting metals in the levitated condition has special features.

Card 7/12

Inductors for heating and melting

30896  
S/180/61/000/005/006/018  
E194/E555

In suspending a liquid body it is necessary that the hydrostatic pressure should be equalised by the electromagnetic at every point of the surface. The weight of suspended liquid metal is limited by its surface tension and specific gravity. To increase the efficiency of the system the size of the inductor should be quite small and to avoid the liquid metal sticking to the inductor conductors the field must be symmetrical. The current-carrying leads distort this symmetry and weaken the field in places. To restore the symmetry various devices are used, such as false leads placed opposite the real ones or displacement of the centres of the upper and lower rings of the inductor, and so on. It is desirable that the bottom of the inductors should be at equal potentials, otherwise the metal at the bottom of the inductor will initially short-circuit the portions at different potential, which can cause sparking and contamination of the hot metal by copper from the inductor. A special 'boat' type of construction is used to set up an equipotential bottom. As before, increasing the power applied to the inductor reduces the power transmitted to the molten metal and this somewhat limits its field of application.

Card 8/12

Inductors for heating and melting . . .

30896

S/180/61/000/005/006/018  
E194/E555

The boat-type inductor is very convenient for series melting but the maximum temperature of the molten metal is lower than in a cross-connected inductor. In experiments with the 'boat' construction at a frequency of 70 kc/s, the metal could be raised to a temperature of 1500°C, and at a frequency of 200 kc/s to 2000°C. Therefore, as previously mentioned, the cross-connected inductor should be used to obtain higher temperatures. Two types have been developed, one with the coils connected in parallel and the other connected in series. In neither type is it possible to develop an equipotential bottom as in the boat conductor. However, the low voltage on the lower coil and the high contact resistance between the inductor conductors and the still cold solid metal practically prevents sticking of the metal to the inductor. At the instant of switching-on, the metal jumps and hangs in the field. In the inductor with parallel-connected coils the maximum potential difference between conductors is less than in that with series coils and, therefore, the parallel construction is more reliable in operation. However, the series connection can give higher temperatures. The limiting temperature for an inductor

Card 9/12

30896

Inductors for heating and melting

S/180/61/000/005/006/018

E194/E555

with parallel cross-connected coils at a frequency of 200 kc/s was 2500°C and for the series version 3000°C. This difference arises partly from heavier losses in the leads to the parallel case and partly from the higher magnetic pressure above the suspended metal body in the series case. In the latter the current is the same in both turns whereas in the parallel connection the current in the upper turn is less than that in the lower because of the difference in diameter. The following table gives data on the melting of various metals in inductors of different designs and the weight of the samples.

Metal	Density g/cm <sup>3</sup>	Melting point, °C	Weight, g	Type of inductor
Titanium	4.5	1720	12	Boat
Zirconium	6.5	1850	12	"
Chromium	7.1	1890	15	"
Vanadium	6.0	1910	12	"
Rhodium	12.4	1966	10	"
Niobium	8.5	2420	10	Parallel cross- connected

Card 10/12

(Table cont next card)

30896

Inductors for heating and melting ... S/180/61/000/005/006/018  
E194/E555

Molybdenum	10.2	2630	8	Series cross-connected
Tantalum	16.6	3000	8	" " "
Tungsten	19.8	3400	8	" " "

- Weight of liquid metal levitated
- Levitated in solid condition but did not melt.

There are 8 figures, 1 table and 6 references: 4 Soviet and 2 non-Soviet. The English-language references read as follows:  
Ref.5: Okress E.C., Wroughton D.W., Comenetz G., Brace P.H., Kelly J.C.R. Electromagnetic Levitation of solid and molten metals. J. Appl. Phys. 1952, v.23, No.5, pp.545-552; Ref.6: Harris B. Sc. and Jenkins A.E. Controlled atmosphere levitation system. J.Scient. Instrum. 1959, v.36, May, pp.238-240. ✓

SUBMITTED: February 9, 1961

Card 11/12



TYULYAYEV, V.N., kand.tekhn.nauk; PAVLOV, N.A., inzh.

Operating reliability of tractor engines with the combustion chamber  
in the piston. Trakt. i sel'khoz mash. no.9:4-5 S '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii  
sel'skogo khozyaystva.

PAVLOV, N.A., inzh.; SLUKHOTSKIY, A.Ye., doktor tekhn. nauk

Calculation of the distribution of temperatures along the cross section of cylindrical steel objects during induction heating. Izv. vys. ucheb. zav.; energ. 8 no.6:17-22 Je '65. (MIRA 18:7)

1. Leningradskiy elektrotekhnicheskii institut imeni Ul'yanova (Lenina). Predstavlena kafedroy elektrotermicheskikh ustanovok.

ARKHANGOLDSKIY, L.A.; BUKSHTEYN, Ya.A.; VOROB'YEV, S.V.; GAYENKO,  
F.A.; DOLGOV, Ye.N.; ZHIGLIN, A.A.; ZUBOVSKIY, G.F.;  
ISHKOV, I.G.; KRYZHANOVSKAYA, G.L.; LISTRATOV, A.A.; LUR'YE,  
R.I.; MORCOZOV, N.P.; OSTROZETSEN, A.S.; PAVLOV, N.A.; PETROV,  
L.M.; POPOV, V.N.; TARTAKOVSKIY, A.A.; TAUBE, D.N.; KHANIN,  
L.I.; SHAPIRO, TS.S.; SHVAYTSBURG, A.A.; SHEVTSOV, V.D.;  
DENISENKOVA, L.M., red.

[Assembler's handbook on performing mechanical assembly and  
special work on grain elevators and grain processing enter-  
prises] Spravochnik montazhnika; po proizvodstvu mekhan-  
montazhnykh i spetsial'nykh rabot na elevatorakh i predpri-  
iatiyakh po pererabotke zerna. Moskva, TSentr. in-t  
nauchno-tekhn. informatsii i tekhniko-ekon. issl., 1963. 519 p.  
(MIKA 17:7)

KHUMPHRIES, John. [Humphries, John],; ZAKHAROVA, Ye.G., [translator],; PAVLOV,  
H.A., [translator],; APANAS'YEV, Yu. A., kand. tekhn. nauk, red.;  
DEYEV, M.H., red., SOKOLOVA, T.S., tekhn. red.

[Rockets and guided missiles] [Translated from the English] Raketye  
dvigateli i upravlyaemye snaryady. . Moskva, Izd-vo inostr. lit-ry,  
1958. 302 p. (MIRA 11:11)

(Missiles)

(Rockets(Aeronautics))

ACC NR: AR6029492

SOURCE CODE: UR/0137/66/000/006/D011/D011

AUTHOR: Pavlov, N. A.

TITLE: Heat calculations for the <sup>N</sup>induction heating of a rolled plate

SOURCE: Ref. zh. Metallurgiya, Abs. 6D81

REF SOURCE: Tr. Vses. n.-i. in-ta tokov tyoskoy chastoty, vyp. 6, 1965, 25-42

TOPIC TAGS: induction heating, hot rolling, *metal heat treatment*

TRANSLATION: A scheme was proposed for calculating the open induction heating of steel plates. The process of high temperature induction heating was divided into three stages, characterized by the distribution of current across the section of the heated article: "cold", intermediate and "hot" cycles of induction heating. This method could also be used for low temperature heating calculations, which may be composed of one or two initial stages. Experimental confirmation of a similar heat calculation method on cylindrical samples showed that during heating to surface temperatures of 1000-1250°C and a final temperature drop of 70-200°C, the relative error in determining the temperature drop did not exceed 30-40%. This result is fully acceptable since it corresponds to a relative accuracy of 5-8% in the determination of the absolute value of the surface and center temperatures. An example of the calculation was presented. N. Yudina.

SUB CODE: 11,13

UDC: 621.771.001

Card 1/1

AL'TSHULER, Z.Ye., inzh.; BASTUNSKIY, M.A., inzh.; BERSTEL', V.N., inzh.;  
 BIRNBERG, I.E., inzh.; BOGOPOLSKIY, B.Kh., inzh.; BUKHARIN, S.I.,  
 inzh.; GERSHTEYN, B.G., inzh.; GRINSHPUN, L.V., inzh.; DREYER, G.I.,  
 inzh.; DIMERSHTEYN, A.G., inzh.; ZLATOPOL'SKIY, D.S., inzh.; KLANYUK,  
 A.V., inzh.; KOZIN, Yu.V., inzh.; LEVITIN, I.P., inzh.; MEL'NIKOV,  
 L.P., inzh.; MEL'KUMOV, L.G., inzh.; NADEL', M.B., inzh.; PAVLOV,  
 N.A., inzh.; PASLICH, D.A., inzh.; PESIN, B.Ya., inzh.; PYATKOVSKIY,  
 P.T., inzh.; RAZNOSCHIKOV, D.V., inzh.; ROZENNOYER, G.Ya., inzh.;  
 ROZENBERG, R.L., inzh.; ROYTENBERG, N.L., inzh.; RYABINSKIY, Ya.I.,  
 inzh.; SYPCHENKO, I.I., inzh.; TABACHNIKOV, L.D., inzh.; FEL'DMAN,  
 E.S., inzh.; SHTRAKHMAN, G.Ya., inzh.; SHPERENGAS, N.S., inzh.;  
 LEVITIN, I.P., otvetstvennyy red.; STEL'MAKH, A.N., red.izd-va;  
 BEKKER, O.G., tekhn.red.

[Overall mechanization and automatization of production processes in  
 the coal industry] Kompleksnaya mekhanizatsiya i avtomatizatsiya  
 proizvodstvennykh protsessov v ugol'noy promyshlennosti. Pod red.  
 I.U.V.Kozina i dr. Moskva, Ugletekhizdat, 1957. 82 p. (MIRA 11:3)

1. Gosudarstvennyy proyektno-konstruktorskiy institut. 2. Institut  
 Giprougleavtomatizatsiya i Tekhnicheskogo Upravleniya Ministerstva  
 ugol'noy promyshlennosti (for all except: Levitin, Stel'makh,  
 Bekker)

(Automatic control) (Coal mining machinery)

PAVLOV, N.A.

Practices in eliminating malaria as an epidemic infection. Med.paraz.  
i paraz.bol.supplement to no.1:25-26 '57. (MIRA 11:1)

1. Iz parazitologicheskogo otdela Vladimirskoy oblastnoy sanitarno-  
epidemiologicheskoy stantsii.  
(VLADIMIR PROVINCE--MALARIA)

PAVLOV, N. H.

USSR/Processes and Equipment for Chemical Industries - K-2  
Control and Measuring Devices. Automatic Regulation.

Abs Jour : Ref Zhur - Khimiya, No 2, 1957, 6989

Author : Pavlov, N. A.

Inst :

Title : Thermocouple with Open Hot Junction for High Pressures

Orig Pub : Sudostroyeniye, 1956, No 6, 36

Abstract : A distinctive feature of the thermocouple having an inertia from fractions of a second to 2-3 seconds is the fact that the terminal ends of thermoelectrodes are hermetically sealed with sintered powdered enamel or enamel and glaze disposed in layers. Such thermocouples have been in operation for one year and a half at 225 atmospheres, absolute, and 375°, while under laboratory conditions they have been tested at pressures up to 500 atmospheres, absolute. They can be recommended for temperature determinations up to 500-550°.

Card 1/1



FOGEL', A.A. (Leningrad); PAVLOV, N.A (Leningrad); KORKIN, I.V. (Leningrad);  
SIDOROVA, T.A. (Leningrad)

Inductors for heating and melting metals in suspension. Izv.AN  
SSSR.Otd.tekh.nauk.Mot.1 topl. no.5:51-61 S-0 '61.

(MIRA 14:10)

(Magnetic induction) (Electrometallurgy)

GRIGOR'YEVICH, Boris Grigor'yevich; KAPROVA, E.S., otv. red.  
KAPROVA, E.S., otv. red.

[Automation of processes on the surface of coal mines; a  
lecture] Avtomatizatsiya protsessov na poverkhnosti  
ugol'nykh shakht; lektsiya. Moskva, 1 entr. in-1 tekhn.  
Informatsii i inzh. nauk, 1961. 3. 1.

(MI - 10:10)

DYMARSKIY, L.Yu.; DIL'MAN, V.M.; ZALESSKAYA, L.I.; ZIV, M.A.; BOGIBOV, Ye.A.; PAVLOVA, M.V.

Combined hormone and chemotherapy and radiotherapy of far advanced breast cancer. Vop. onk. 9 no.7:44-52 '63.

(MIRA 16:11)

1. Iz Instituta onkologii AMN SSSR (nauchnyy rukovoditel' raboty chlen-korrespondent AMN SSSR prof. S.A. Kholdin). Adres avtorov: Leningrad, P-129, Institut onkologii AMN SSSR.

PAVLOV, N. E.

USSR :

Ivan Grigor'evich Shcherbakov (1891-1954). I. I.  
Aysenzy, N. E. Pavlov, and M. N. Tikhonov. *Zash.*  
1954. 72. 179-181 (1954).—Obituary with a portrait  
and a list of publications. S. was professor of electrochem-  
istry. I. I. Bikharev

PAVLOV, N.E.

USSR/Scientists - Electrochemistry

Card 1/1 Pub. 147 - 27/27

Authors : Agafonov, I. L.; Pavlov, N. E.; and Tikhomirov, M. N.

Title : Ivan Grigoryevich Shcherbakov

Periodical : Zhur. fiz. khim. 28/9, 1707-1712, Sep 1954

Abstract : An eulogy honoring the death of I. G. Shcherbakov (1891-1953), famous Soviet electrochemist, is presented. List of major works by I. G. Shcherbakov is included.

Institution : ...

Submitted : ...

31086. PAVLOV, N. F.

Fenomen ~~svosplamneniya~~ i otek~~ov~~ pyaten posle nikotinovoy kisloty pri ranney diagnostike lepry. Vestnik venerologii i dermatologii, 1949, No. 5, s. 45-47

PAVLOV, N.F., dots.; SHIMANOVICH, A.N.

Solusulphone (sulphetrone) in the treatment of leiomyoma of the skin. Sov. med. 21 no.7:131-133 J1 '57. (MIRA 12:3)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - dots. N.F. Pavlov) Belorusskogo instituta usovershenstvovaniya vrachey (dir. - prof. M.N. Zhukova).

(SKIN, NEOPLASMS, ther.

leiomyoma, ther., sulphetrone (Rus))

(SULFONES, ther. use

sulphetrone in skin leiomyoma (Rus))

(LEIOMYOMA, ther.

sulphetrone in skin leiomyoma (Rus))

SELISSKIY, Aleksandr Borisovich, prof.; PAVLOV, N.F., dots., red.;  
ZAYTSEVA, T., red. izd-va; VOLOKHANOVICH, I., tekhn. red.

[A guide to skin diseases; clinical aspects and treatment of  
diseases of the skin, pharmacotherapy and prescription fil-  
ling] Spravochnik po kozhnym bolezniyam; klinika i lechenie za-  
bolevanii kozhi, farmakoterapiia i retseptura. Izd.2., perer.  
i dop. Minsk, Izd-vo Akad.nauk BSSR, 1961. 412 p.  
(MIRA 15:1)

(SKIN--DISEASES)



PAVLOV, N.F., dotsent

Fungoid bromoderma. Vest. dermat. i ven. 38 no.3:79-81 Mr '64.

(MIRA 1814)

1. Kafedra dermato-venerologii (zav. - dotsent N.F.Pavlov)  
Belorusskogo instituta usovershenstvovaniya vrachey.

PAVLOV, N.G.

Limit diameters of blocks and drums of hoisting machines.  
Trudy LPI no.236:84-90 '64.

Selecting cores for hoisting cables. Ibid.:91-98

(MIRA 18:3)

com. Artillery; 1st Div. 1st Bn. 1st Co. 1st Pl. 1st Sq. 1st Troop.  
1st Pl. 1st Sq. 1st Troop.

GEL'FENBEYN, Yakov Vladimirovich; VINITSKIY, D.Ya., inzh., retsenzent;  
EBERLIN, L.A., inzh., retsenzent; PAVLOV, N.G., red.;  
ZHITNIKOVA, O.S., tekhn. red.

[Hoisting mechanisms and rigging devices for the construction of thermal electric power plants] Gruzopodzemnye mekhanizmy i takelazhnye prispособleniia dlia stroitel'stva teplovykh elektrostantsii. Moskva, Gosenergoizdat, 1962. 270 p.

(MIRA 15:9)

1. Moskovskiy filial Vsesoyuznogo instituta po proyektirovaniyu organizatsiy energeticheskogo stroitel'stva (for Vinitskiy, Eberlin).

(Hoisting machinery)

(Electric power plants--Design and construction)

PAVLOV, N. G.

Cand Tech Sci - (diss) "Problem of the calculation and designing of plate separators with mechanized discharging of concentrated precipitates." Leningrad, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Technological Inst of the Refrigeration Industry); 180 copies; price not given; (KL, 5-61 sup, 192)

LANG, A.G.; MAZOVER, I.S.; MAYZEL', V.S.; BARANOV, N.A.; GOKHBER, M.M., dokt.  
tekh. nauk, prof., retsenzent;; PAVLOV, N.G., kand. tekhn.  
nauk, red. MITARCHUK, G.A., red. ~~izd-va~~; SICHETININA, L.V.,  
tekh. red.

[Gantry cranes; design and construction] Portal'nye krany;  
raschet i konstruirovaniye. Izd. 2., perer. i dop. Moskva,  
Mashgiz, 1962. 283 p. (MIRA 15:10)  
(Cranes, derricks, etc.)

PAVLOV, Nikolay Germanovich

[Armed forces of NATO] Vooruzheniye sily NATO. Leningrad,  
Ob-vo po rasprostraneniю polit. i nauchn. znanii RSFSR,  
1959. 41 p. (MIRA 15:9)  
(North Atlantic Treaty Organization)

PAVLOV, N. G.

"A. S. Popov, the Great Russian Scientist and Inventor of Radio" (Velikiy russkiy uchenyy izobretatel' radio A. S. Popov), Central Polytechnic Library, 1949 6 pp.



KOZULIN, N.A., doktor tekhn. nauk, prof.; PAVLOV, N.G., inzh.

Determining the performance of ultra centrifuges from thickened  
deposits. Khim. mash. no.6:23-26 N-D '59. (MIRA 13:3)  
(Centrifuges) (Separators (Machines))

PAVLOV, N.G.

Investigating steel ropes used in assembling hoists. Trudy LPI  
no.211:77-84 '60. (MIRA 13:11)  
(Wire rope--Testing)

PAVLOV, N.G.

Determining equivalent loads in calculating the closing ropes of  
grabs. Trudy LPI no.211:85-94 '60. (MIRA 13:11)  
(Wire rope--Testing)

PAVLOV, Nikolay Georgiyevich, dotsent, kand, tekhn. nauk; MAYZEL', V.S.,  
inzh., retsenzent; LANG, A.G., dots., red.; VASIL'YEVA, V.P., red.  
izd-va; SPERANSKAYA, O.V., tekhn. red.

[Examples of crane designs] Primery raschetov kranov. Izd.2., perer.  
i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,  
1961. 301 p. (MIRA 14:7)

(Electric cranes)

PIVLEV, N. G.

Examples for the calculation of cranes. Leningrad, Gos. nauchno-tekhn.  
izd-vo mashinostroitel. Lit-ry. Leningradskoe otd-nie 1954. 285 s. (95-44247)

TJ136.P3

1. Cranes, derricks, etc.

PAVLOV, N.G.

PAVLOV, N.G., kandidat tekhnicheskikh nauk, dotsent; LANG, A.G., inzhener, retsenzent; CHILAYEV, G.A., inzhener, redaktor; SOKOLOVA, L.V., tekhnicheskiiy redaktor

[Examples of crane calculations] Primery raschetov kranov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1954. 285 p. (Cranes, derricks, etc.) (MLRA 8:4)

SAMOYLOVICH, Platon Aleksandrovich; Pavlov, N.G., redaktor; MELEYEV, A.S.,  
redaktor izdatel'stva; TIKHONOVA, Ye.A., tekhnicheskiy redaktor

[Technical operation and maintenance of hoisting and conveying  
machinery] Tekhnicheskaya ekspluatatsiya i montazh pod'emno-trans-  
portnykh mashin. Izd. 2-oe, perer. i dop. Moskva, Izd-vo "Morskoi  
transport." 1955. 345 p. (MIRA 9:8)

(Hoisting machinery (Conveying machinery))

20501

S/050/61/000/005/001/003  
D235/D301

3.5000 (1093,1041)

AUTHOR: Pavlov, N.I.

TITLE: The problem of cyclone and anticyclone movement

PERIODICAL: Meteorologiya i gidrologiya, no. 5, 1961, 24-26

TEXT: One of the important problems in synoptic practice is the determination of the direction and speed of cyclone and anticyclone movement. All research in this field mainly aims at establishing definite rules, by means of which the movement of "baric" or pressure formations may be forecast. Practice has shown that S.I. Troitskiy's "rule of leading flow" [Abstractor's note: No reference given] is only applicable to some extent in baric formations developed at low levels, over whose centers the leading flow is clearly expressed: this rule is not applicable for high baric formations. Kh.P. Polosyan and N.L. Taborovskiy [Abstractor's note: No reference given] subsequently found that the trajectory

Card 1/11



20501

S/050/61/000/005/001/003  
D235/D301

The problem of cyclone ...

of a deepening cyclone possesses cyclone curvature while the trajectory of a charging cyclone possesses anticyclone curvature. A.F. Lyubyuk [Abstractor's note: No reference given] has shown that deepening cyclones and weakening anticyclones are deflected to the left of the structure contour direction, passing through its center if the baric profile curvature at the earth's surface is greater than at the 700 mb surface. Charging cyclones and strengthening anticyclones, however, are deflected to the right under these conditions. If the isobar curvature at the earth's surface is less than the 700 atmosphere structure-contour, deepening cyclones and weakening anticyclones are deflected to the right and charging cyclones and strengthening anticyclones to the left. A more precise and objective forecast of the movement of baric centers may be obtained from the theoretical formulae for determining the components of the velocity of movement:

$$c_x = \frac{\frac{\partial p}{\partial x} \frac{\partial p}{\partial y} - \frac{\partial p}{\partial y} \frac{\partial p}{\partial x}}{\left( \frac{\partial p}{\partial x} \right)^2 + \left( \frac{\partial p}{\partial y} \right)^2}; \quad (1)$$

Card 2/11

20501

The problem of cyclone ...

S/050/61/000/005/001/003  
D235/D301

$$c_y = \frac{\frac{\partial^2 p}{\partial y \partial t \partial x^2} - \frac{\partial^2 p}{\partial x \partial t \partial x \partial y}}{\left(\frac{\partial^2 p}{\partial x \partial y}\right)^2 - \frac{\partial^2 p}{\partial x^2 \partial y^2}} \quad (2)$$

The most complex part of the calculation of the velocity of movement of baric centers from these formulae lies in determining the values of

$$\frac{\partial^2 p}{\partial x \partial t}, \quad \frac{\partial^2 p}{\partial y \partial t}$$

which characterize the variation of baric tendencies along the X- and Y-axes in relation to the cyclone center. As is known, the cyclone center as a specific point in the baric field is characterized by very low pressure values and is determined by equations

$$\frac{\partial p}{\partial x} = 0; \quad \frac{\partial p}{\partial y} = 0. \quad (3)$$

It is known from synoptic practice that the passage of cyclone

Card 3/11

20501

S/050/61/000/005/001/003  
D235/D301

The problem of cyclone ...

centers through any particular point is accompanied by calm weather. If the wind velocity is taken in a geostrophic approximation, it is clear from (3) that for the cyclone center both  $U_g$  and  $V_g = 0$ . Thus, for the cyclone center the equations of movement with no calculation of friction forces in a geostrophic approximation in the  $x, y, p$  and  $t$  coordinate system may be written as

$$\frac{\partial u_g}{\partial t} + \tau \frac{\partial u_g}{\partial p} = 0; \quad \frac{\partial v_g}{\partial t} + \tau \frac{\partial v_g}{\partial p} = 0. \quad (4)$$

Here the value  $\tau$  represents the vertical velocity at the cyclone center. Determining the values of

$$\frac{\partial^2 p}{\partial x \partial t}, \quad \frac{\partial^2 p}{\partial y \partial t}$$

from (4) and inserting them in (2), we obtain formulae for determining the components of the velocity of movement of baric centers:

Card 4/11

20501

S/050/61/000/005/001/003  
D235/D301

The problem of cyclone ...

$$\epsilon_x = \frac{\rho g \left( \frac{\partial^2 p}{\partial x \partial y} \frac{\partial H}{\partial p \partial y} - \frac{\partial^2 p}{\partial y^2} \frac{\partial H}{\partial p \partial x} \right)}{\left( \frac{\partial^2 p}{\partial x \partial y} \right)^2 - \frac{\partial^2 p}{\partial x^2} \frac{\partial^2 p}{\partial y^2}} \quad (5)$$

$$\epsilon_y = \frac{\rho g \left( \frac{\partial^2 p}{\partial x \partial y} \frac{\partial H}{\partial p \partial x} - \frac{\partial^2 p}{\partial x^2} \frac{\partial H}{\partial p \partial y} \right)}{\left( \frac{\partial^2 p}{\partial x \partial y} \right)^2 - \frac{\partial^2 p}{\partial x^2} \frac{\partial^2 p}{\partial y^2}} \quad (5)$$

We present the values  $\frac{\partial^2 H}{\partial p \partial x}$ ,  $\frac{\partial^2 H}{\partial p \partial y}$  in finite forms, thereby taking into account that within the cyclone center at the earth's surface both

$$\frac{\partial H}{\partial x} = 0, \text{ and } \frac{\partial H}{\partial y} = 0:$$

$$\frac{\partial H}{\partial p \partial x} = -\frac{\frac{\partial H_p}{\partial x}}{\rho_0 - p}, \quad \frac{\partial H}{\partial p \partial y} = -\frac{\frac{\partial H_p}{\partial y}}{\rho_0 - p} \quad (6)$$

Card 5/11

20501

S/050/61/000/005/001/003  
D235/D301

The problem of cyclone ...

Inserting (6) in (5), we obtain the final formulae:

$$\begin{aligned} c_x &= \frac{\gamma p R \left( \frac{\partial H_p}{\partial x} \frac{\partial^2 p}{\partial y^2} - \frac{\partial H_p}{\partial y} \frac{\partial^2 p}{\partial x \partial y} \right)}{(p_0 - p) \left[ \left( \frac{\partial^2 p}{\partial x \partial y} \right)^2 - \frac{\partial^2 p}{\partial x^2} \frac{\partial^2 p}{\partial y^2} \right]} \\ c_y &= \frac{\gamma p R \left( \frac{\partial H_p}{\partial y} \frac{\partial^2 p}{\partial x^2} - \frac{\partial H_p}{\partial x} \frac{\partial^2 p}{\partial x \partial y} \right)}{(p_0 - p) \left[ \left( \frac{\partial^2 p}{\partial x \partial y} \right)^2 - \frac{\partial^2 p}{\partial x^2} \frac{\partial^2 p}{\partial y^2} \right]} \end{aligned} \quad (7)$$

For determining  $\frac{\partial H_p}{\partial x}$ ,  $\frac{\partial H_p}{\partial y}$ , during daily forecasting, the level  $H_p$  should be taken not arbitrarily, but depending on the characteristic vertical velocities in this layer (when  $w = 1$  cm/sec,  $\Delta t = 8.64 \cdot 10^4$  and  $H_p = 864$  m). In view of the nearness of the

Card 6/11

20501

S/050/61/000/005/001/007  
D235/D301

The problem of cyclone ...

standard 850 mb isobaric surface, this may be used for determining  $\frac{\partial H_p}{\partial x}$ ,  $\frac{\partial H_p}{\partial y}$ , thereby allowing some error. Having set the X-axis tangentially to the 850 mb structure-contour over the cyclone center and the Y-axis at right angles to this tangent, the formulae for baric formations with circular isobars may be written in the form

$$\begin{aligned} c_x &= - \frac{\tau \rho g \frac{\partial H_p}{\partial x}}{(p_0 - p) \frac{\partial^2 p}{\partial x^2}} = 0; \\ c_y &= - \frac{\tau \rho g \frac{\partial H_p}{\partial y}}{(p_0 - p) \frac{\partial^2 p}{\partial y^2}} \end{aligned} \quad (8)$$

The value  $\tau$  represents the evolution of the baric formations. Upward vertical movements are observed in deepening cyclones and

Card 7/11

20501

S/050/61/000/005/001/003  
D235/D301

The problem of cyclone ...

in cyclones whose depth is not changing and downward vertical movements in charging cyclones. Since the calculation of the values of  $\tau$  is very laborious, formulae (7) and (8) may be used principally for determining the direction of movement of baric formations. In order to determine the velocity of movement of baric formations, it is necessary to use the empirically established relationship between the wind velocity in the middle layers of the troposphere and the velocity of movement of baric formations at the earth's surface. The following conclusions may be drawn from an examination of formula (8): 1) When  $\tau = 0$  the velocity of movement of the baric centers equals zero; 2) When  $\tau < 0$  (deepening of a cyclone, strengthening of an anticyclone or stable pressure at the center) the baric formations move in a direction normal to the 850 atmosphere structure-contour counterclockwise; 3) When  $\tau > 0$  (charging of a cyclone, weakening of an anticyclone) the baric formations move clockwise in a direction normal to the 850 atmosphere structure-contour; 4) When  $\frac{\partial H_p}{\partial y} = 0$ .

Card 8/11

20501  
S/050/61/000/005/001/003  
D235/D301

The problem of cyclone ...

i.e. if the cyclone axis is quasi-vertical, the velocity of movement of the baric formations equals zero; 5) The greater the

value of  $\frac{\partial H}{\partial y}$  (the stronger the wind at the 850 mb level over the center of the baric formations), the greater the velocity of movement; 6) The greater the value of  $\tau$  (upward and downward vertical movements), the greater the displacement velocity; 7) The more rarefied the isobars in relation to the surface center of the cyclone, the greater the velocity of movement. It should be noted that these formulae are correct for a small time interval, since the angle of inclination of the vertical axis of the baric formations varies with time, as does the cyclone depth and the associated thickening and thinning of the isobars relative to the cyclone center both at the earth's surface and at higher levels. The author considers the example of a 24-hour forecast of the movement of a cyclone. According to observational data on the weather map at 3 o'clock on October 26, 1958, a cyclone center

Card 9/11



20501  
S/050/61/000/005/001/003  
D235/D301

The problem of cyclone ...

with a pressure of about 981 mb was situated near Tobol'sk. The cyclone axis was inclined to the S.W., the leading flow at the 700 mb level over the cyclone center being oriented to the N.W. The wind velocity over the surface center of the cyclone at the 700 mb level was 30 km/hr. Clearly expressed isallobaric foci were observed in the forward and rear parts of the cyclone, the line joining their centers being oriented to the N.E. The 850 atmosphere structure contour over the surface center of the cyclone on the map was also oriented in a N.W. direction. It might have been assumed from an analysis of the altitude and surface maps that the cyclone would become approximately 5 mb deeper during the next 24 hours. On the basis of formulae (8) the cyclone should have moved to the N.E. at right angles to the direction of the 850 atmosphere structure-contour, with a speed of 30 km/hr, and at 3 o'clock on November 27 Abstractor's note: This could be a printer's error, the center should have been in the region to the west of the Agan River (right tributary of the Ob').

Card 10/11

20501

S/050/61/000/005/001/003

D235/D301

The problem of cyclone ...

According to the rule of leading flow, the cyclone should have moved N.W. in 24 hours to the area of the upper reaches of the Pechora River. Actually the cyclone had moved N.N.E. after 24 hours to the Lake Pyasu To area; during these 24 hours the cyclone moved at a mean velocity of 32 km/hr. According to formulae (8) the error in the direction of movement of the cyclone center was about  $32^\circ$ , the locational error being about 450 km. According to the rule of leading flow the error in the direction of cyclone movement was about  $60^\circ$ , and the locational error for the cyclone center was about 800 km. Abstractor's note: This is essentially a complete translation. ✓

Card 11/11

ACCESSION NR: AR4008217

S/0169/63/000/011/B024/B024

SOURCE: RZh. Geofizika, Abs. 11B151

AUTHOR: Pavlov, N. I.

TITLE: Conditions for the regeneration of cyclones in the Kara Sea region during the period it is open to navigation

CITED SOURCE: Sb. Probl. Arktiki i Antarktiki. Vy\*p. 13. L., Morsk. transport, 1963, 125-128

TOPIC TAGS: meteorology, Arctic navigation, Kara Sea navigation, cyclonic regeneration, Arctic cyclonic regeneration, cyclone recurrence, seasonal cyclone

TRANSLATION: The author examines cases of cyclone regeneration occurring in 1950-1959. A table of the distribution of regenerative cyclones by months is constructed. The maximum occurs in September (16 cases). No regeneration was observed in July. Regeneration is most frequent and intensive in the southern part of the Kara Sea in the Ob'-Yenisey region, and in the central portion of the Sea. Cyclone regeneration in the region of the Kara Sea often occurs as a

Card 1/2

ACCESSION NR: AR4008217

result of the sucking in of the Arctic front into the system of the regenerative cyclone, as well as when the young cyclone enters the region of an old cyclone. Four indications of regeneration are given. An actual example is considered. I. Dubina.

DATE ACQ: 09Dec63

SUB CODE: AS

ENCL: 00

Cord 2/2

PAVLOV, N.I.

Contribution of vertical movements to the evolution of  
cyclones and anticyclones. Meteor. i gidrol. no.5:49-50  
My '64. (MIRA 17:6)

1. Byuro pogody, Tiksi.

FAVLOV, N.I.

Significance of the pressure tendency in the center of a cyclone  
according to data from the nearest stations. Trudy TSIF no.146:  
41-42 '65. (MIRA 18.9)

PAVLOV, N.I.

Determination of the kinetic energy of cyclones and anticyclones.  
Meteor. i gidrol. no.1:37-38 Ja '66. (MIRA 19:1)

1. Byuro pogody Tiksi, Yakutskaya ASSR. Submitted February 13,  
1965.

L 3776-66 EWT(m)/ENA(m)-2 IJP(c) GS  
ACCESSION NR: AT5007947

S/0000/64/000/000/0693/0697

44  
35  
B+

AUTHOR: Zinov'yev, L. P.; Issinskiy, I. B.; Kotov, V. I.; Kulakova, Ye. M.;  
Pavlov, N. I.; Myznikov, K. P.

TITLE: The utilization of parametric resonance in the 10-Bev synchrophasotron for particle output

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963.  
Trudy. Moscow, Atomizdat, 1964, 693-697

TOPIC TAGS: high energy accelerator, electron paramagnetic resonance, focusing accelerator

ABSTRACT: Accelerated particles with pulse length of less than 100  $\mu$ sec are of great importance in current physical experiments. Great interest is shown in the possibility of applying the parametric (half-integral) resonance. Such a possibility has been discussed in the literature especially in application to conditions of weak-focusing and strong-focusing accelerators. Utilization of the resonance  $v_x = 1/2$  for the rapid hurling of the accelerated beam against the target in a small 70-Mev synchrotron permitted one to obtain good results. The present report discusses the results of investigations conducted on the synchrophasotron at the

Card 1/3



L 3776-66

ACCESSION NR: AT5007947

Joint Institute of Nuclear Research to clarify the expediency of artificially exciting the resonance  $\nu_z = 1/2$  for hurling the accelerated particles against the target and for extracting the proton beam from the accelerator's chamber. The resonance conditions were created by way of variation in an identical manner of the field index  $n$  in two neighboring quadrants such that the mean value of  $n$  in the accelerator corresponded to the condition of resonance. The resonance force here is determined by the magnitude of the first harmonic of the excitation (A. A. Kolomenskiy, A. N. Lebedev, *Teoriya tsiklicheskikh uskoriteley* (Theory of Cyclical Accelerators), Moscow, Fizmatgiz, 1962). Under real conditions the exciting field was created with the help of windings arranged inside the accelerator's vacuum chamber. The inductance of the windings arranged to about 3 mega-henries, which limited the rate of growth of the excitation. Numerical calculations carried out on an electronic computer on the exact equations of motion of the particles in the magnetic field showed that, for obtaining the resonance conditions, it is necessary to create the configuration of the magnetic field such that the index  $n$  in the excited quadrants reach values close to 0.9 for a duration of 300 microseconds (about 400 revolutions). The following topics are discussed: the dependence of the field index  $n$  upon the radius for currents of 340 amperes and none in the ex-

Card 2/3

L 3776-66

ACCESSION NR: AT5007947

9

citer winding; radial hurling of particles on the target 10 cm and 20 cm from the target; dependence of the duration of beam collision with the target upon the radial position of the target relative to the orbit for various excitations; dependence of the depth of hurling upon excitation and radial position of the target; the angle of flight of the particles into the gap of the deflector as a function of the moment of flight. "The authors thank Academician V. I. Veksler for his helpful discussions; L. A. Smirnova and N. N. Govorun for their help in the numerical computations; V. M. Buldakovskiy, A. I. Kryukov, Yu. F. Kusagin, V. S. Mironov, M. I. Nikitayev, et al., for their participation in developing and adjusting the emulsion experiments." Orig. art. has: 8 figures.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26May64

ENCL: 00

SUB CODE: NP

NO REF SOV: 004

OTHER: 003

Card 3/3

L 47084-73 ENT(m)/EPA(w)-2/EWA(m)-2 Pt-7/Pab-10 IJP(c)  
ACCESSION NR. A 85007000

ACCESSION NR: AP5007020

S/0120/65/000/001/0033/0038

AUTHOR: Zinov'yev, L. P.; Issinskiy, I. B.; Kotov, V. I.; Kulakova, Ye. M.;  
Myznikov, K. P.; Pavlov, N. I.

TITLE: Fast extraction of the proton-synchrotron beam to the target <sup>19</sup>

SOURCE: Pribyry i tekhnika eksperimenta, no. 1, 1965, 33-38

TOPIC TAGS: particle beam, proton synchrotron, beam extraction

**ABSTRACT:** Fast extraction of the beam and sending it to a target located near the maximum-deflection azimuth was achieved by creating parametric-resonance conditions in the weak-focusing 10-Gev proton-synchrotron. The resonance conditions were ensured by windings placed inside the vacuum chamber. A bank of capacitors was discharged at 10 kv into the winding; by the end of the acceleration cycle, the (thyatron-switched) winding current rose sine-wise to a maximum and then (also thyatron-switched) fell-off exponentially. The system ensured a

**Cord 1/2**

L 47034-65

ACCESSION NR: AP5007020

beam-extraction time as low as 30 msec. "The authors wish to thank V. I. Vokhler for a useful discussion; L. A. Smirnova and N. N. Gogorun for their great help in calculations; and Y. N. Buldakovsky, A. I. Kryukov, Yu. F. Kusagin, V. S. Mironov, M. I. Nibitayev, and others who took part in the development and alignment of the equipment." Orig. art. has: 6 figures and 1 formula.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Nuclear Research Institute)

SUBMITTED: 29Jan64

ENCL: 00

SUB CODE: NP

NO REF SOV: 007

OTHER: 005

Card 2/7

BABIKOV, B.I.; PAVLOV, N.I., redaktor; VOLKHOVER, R.S., tekhnicheskii  
redaktor

[Work experience of an efficient lathe operator] Opyt tokaria-  
skorostnika. Moskva, Goslesbumizdat, 1951. 30 p. [Microfilm]  
(Turning) (MLRA 7:10)

**CIA-RDP86-00513R0012396**

Paulov, N. I.

PAVLOV, N. I. (Moscow)

1974-1975

Studies of the demand for medical aid should be improved  
and also 6-10-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1106-1107-1108-1109-1110-1111-1112-1113-1114-1115-1116-1117-1118-1119-1120-1121-1122-1123-1124-1125-1126-1127-1128-1129-1130-1131-1132-1133-1134-1135-1136-1137-1138-1139-1140-1141-1142-1143-1144-1145-1146-1147-1148-1149-1150-1151-1152-1153-1154-1155-1156-1157-1158-1159-1160-1161-1162-1163-1164-1165-1166-1167-1168-1169-1170-1171-1172-1173-1174-1175-1176-1177-1178-1179-1180-1181-1182-1183-1184-1185-1186-1187-1188-1189-1190-1191-1192-1193-1194-1195-1196-1197-1198-1199-1200-1201-1202-1203-1204-1205-1206-1207-1208-1209-1210-1211-1212-1213-1214-1215-1216-1217-1218-1219-1220-1221-1222-1223-1224-1225-1226-1227-1228-1229-1230-1231-1232-1233-1234-1235-1236-1237-1238-1239-1240-1241-1242-1243-1244-1245-1246-1247-1248-1249-1250-1251-1252-1253-1254-1255-1256-1257-1258-1259-1260-1261-1262-1263-1264-1265-1266-1267-1268-1269-1270-1271-1272-1273-1274-1275-1276-1277-1278-1279-1280-1281-1282-1283-1284-1285-1286-1287-1288-1289-1290-1291-1292-1293-1294-1295-1296-1297-1298-1299-1300-1301-1302-1303-1304-1305-1306-1307-1308-1309-1310-1311-1312-1313-1314-1315-1316-1317-1318-1319-1320-1321-1322-1323-1324-1325-1326-1327-1328-1329-1330-1331-1332-1333-1334-1335-1336-1337-1338-1339-1340-1341-1342-1343-1344-1345-1346-1347-1348-1349-1350-1351-1352-1353-1354-1355-1356-1357-1358-1359-1360-1361-1362-1363-1364-1365-1366-1367-1368-1369-1370-1371-1372-1373-1374-1375-1376-1377-1378-1379-1380-1381-1382-1383-1384-1385-1386-1387-1388-1389-1390-1391-1392-1393-1394-1395-1396-1397-1398-1399-1400-1401-1402-1403-1404-1405-1406-1407-1408-1409-1410-1411-1412-1413-1414-1415-1416-1417-1418-1419-1420-1421-1422-1423-1424-1425-1426-1427-1428-1429-1430-1431-1432-1433-1434-1435-1436-1437-1438-1439-1440-1441-1442-1443-1444-1445-1446-1447-1448-1449-1450-1451-1452-1453-1454-1455-1456-1457-1458-1459-1460-1461-1462-1463-1464-1465-1466-1467-1468-1469-1470-1471-1472-1473-1474-1475-1476-1477-1478-1479-1480-1481-1482-1483-1484-1485-1486-1487-1488-1489-1490-1491-1492-1493-1494-1495-1496-1497-1498-1499-1500-1501-1502-1503-1504-1505-1506-1507-1508-1509-1510-1511-1512-1513-1514-1515-1516-1517-1518-1519-1520-1521-1522-1523-1524-1525-1526-1527-1528-1529-1530-1531-1532-1533-1534-1535-1536-1537-1538-1539-1540-1541-1542-1543-1544-1545-1546-1547-1548-1549-1550-1551-1552-1553-1554-1555-1556-1557-1558-1559-1560-1561-1562-1563-1564-1565-1566-1567-1568-1569-1570-1571-1572-1573-1574-1575-1576-1577-1578-1579-1580-1581-1582-1583-1584-1585-1586-1587-1588-1589-1590-1591-1592-1593-1594-1595-1596-1597-1598-1599-1600-1601-1602-1603-1604-1605-1606-1607-1608-1609-1610-1611-1612-1613-1614-1615-1616-1617-1618-1619-1620-1621-1622-1623-1624-1625-1626-1627-1628-1629-1630-1631-1632-1633-1634-1635-1636-1637-1638-1639-1640-1641-1642-1643-1644-1645-1646-1647-1648-1649-1650-1651-1652-1653-1654-1655-1656-1657-1658-1659-1660-1661-1662-1663-1664-1665-1666-1667-1668-1669-1670-1671-1672-1673-1674-1675-1676-1677-1678-1679-1680-1681-1682-1683-1684-1685-1686-1687-1688-1689-1690-1691-1692-1693-1694-1695-1696-1697-1698-1699-1700-1701-1702-1703-1704-1705-1706-1707-1708-1709-1710-1711-1712-1713-1714-1715-1716-1717-1718-1719-1720-1721-1722-1723-1724-1725-1726-1727-1728-1729-1730-1731-1732-1733-1734-1735-1736-1737-1738-1739-1740-1741-1742-1743-1744-1745-1746-1747-1748-1749-1750-1751-1752-1753-1754-1755-1756-1757-1758-1759-1760-1761-1762-1763-1764-1765-1766-1767-1768-1769-1770-1771-1772-1773-1774-1775-1776-1777-1778-1779-1780-1781-1782-1783-1784-1785-1786-1787-1788-1789-1790-1791-1792-1793-1794-1795-1796-1797-1798-1799-1800-1801-1802-1803-1804-1805-1806-1807-1808-1809-1810-1811-1812-1813-1814-1815-1816-1817-1818-1819-1820-1821-1822-1823-1824-1825-1826-1827-1828-1829-1830-1831-1832-1833-1834-1835-1836-1837-1838-1839-1840-1841-1842-1843-1844-1845-1846-1847-1848-1849-1850-1851-1852-1853-1854-1855-1856-1857-1858-1859-1860-1861-1862-1863-1864-1865-1866-1867-1868-1869-1870-1871-1872-1873-1874-1875-1876-1877-1878-1879-1880-1881-1882-1883-1884-1885-1886-1887-1888-1889-1890-1891-1892-1893-1894-1895-1896-1897-1898-1899-1900-1901-1902-1903-1904-1905-1906-1907-1908-1909-1910-1911-1912-1913-1914-1915-1916-1917-1918-1919-1920-1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177-2178-2179-2180-2181-2182-2183-2184-2185-2186-2187-2188-2189-2190-2191-2192-2193-2194-2195-2196-2197-2198-2199-2200-2201-2202-2203-2204-2205-2206-2207-2208-2209-2210-2211-2212-2213-2214-2215-2216-2217-2218-2219-2220-2221-2222-2223-2224-2225-2226-2227-2228-2229-2230-2231-2232-2233-2234-2235-2236-2237-2238-2239-2240-2241-2242-2243-2244-2245-2246-2247-2248-2249-2250-2251-2252-2253-2254-2255-2256-2257-2258-2259-2260-2261-2262-2263-2264-2265-2266-2267-2268-2269-2270-2271-2272-2273-2274-2275-2276-2277-2278-2279-2280-2281-2282-2283-2284-2285-2286-2287-2288-2289-2290-2291-2292-2293-2294-2295-2296-2297-2298-2299-2300-2301-2302-2303-2304-2305-2306-2307-2308-2309-2310-2311-2312-2313-2314-2315-2316-2317-2318-2319-2320-2321-2322-2323-2324-2325-2326-2327-2328-2329-2330-2331-2332-2333-2334-2335-2336-2337-2338-2339-2340-2341-2342-2343-2344-2345-2346-2347-2348-2349-2350-2351-2352-2353-2354-2355-2356-2357-2358-2359-2360-2361-2362-2363-2364-2365-2366-2367-2368-2369-2370-2371-2372-2373-2374-2375-2376-2377-2378-2379-2380-2381-2382-2383-2384-2385-2386-2387-2388-2389-2390-2391-2392-2393-2394-2395-2396-2397-2398-2399-2400-2401-2402-2403-2404-2405-2406-2407-2408-2409-2410-2411-2412-2413-2414-2415-2416-2417-2418-2419-2420-2421-2422-2423-2424-2425-2426-2427-2428-2429-2430-2431-2432-2433-2434-2435-2436-2437-2438-2439-2440-2441-2442-2443-2444-2445-2446-2447-2448-2449-2450-2451-2452-2453-2454-2455-2456-2457-2458-2459-2460-2461-2462-2463-2464-2465-2466-2467-2468-2469-2470-2471-2472-2473-2474-2475-2476-2477-2478-2479-2480-2481-2482-2483-2484-2485-2486-2487-2488-2489-2490-2491-2492-2493-2494-2495-2496-2497-2498-2499-2500-2501-2502-2503-2504-2505-2506-2507-2508-2509-2510-2511-2512-2513-2514-2515-2516-2517-2518-2519-2520-2521-2522-2523-2524-2525-2526-2527-2528-2529-2530-2531-2532-2533-2534-2535-2536-2537-2538-2539-2540-2541-2542-2543-2544-2545-2546-2547-2548-2549-2550-2551-2552-2553-2554-2555-2556-2557-2558-2559-2560-2561-2562-2563-2564-2565-2566-2567-2568-2569-2570-2571-2572-2573-2574-2575-2576-2577-2578-2579-2580-2581-2582-2583-2584-2585-2586-2587-2588-2589-2590-2591-2592-2593-2594-2595-2596-2597-2598-2599-2600-2601-2602-2603-2604-2605-2606-2607-2608-2609-2610-2611-2612-2613-2614-2615-2616-2617-2618-2619-2620-2621-2622-2623-2624-2625-2626-2627-2628-2629-2630-2631-2632-2633-2634-2635-2636-2637-2638-2639-2640-2641-2642-2643-2644-2645-2646-2647-2648-264

24(6)

AUTHORS:

Rzhanov, A. V., Pavlov, N. M.,  
Selezneva, M. A.

307/57-58-12-1/15

TITLE:

Investigation of the Energy Levels and of the Effective  
Capture Cross Sections of the Surface Recombination Levels  
in Germanium (Issledovaniye energeticheskikh polozheniy  
i effektivnykh secheniy zakhvata poverkhnostnykh  
rekombinatsionnykh urovney v germanii)

PERIODICAL:

Zhurnal tekhnicheskoy fiziki, 1958, <sup>16</sup>Nr 12, pp 2645-2656 (USSR)

ABSTRACT:

An investigation of the surface recombination levels occurring  
as a consequence of heating the germanium samples in vacuum or  
because of the action of ozone upon these samples was carried  
out. Preliminary data on the temperature dependence of the  
energy levels and of the effective capture cross sections when  
a hole and an electron are captured by these levels and the  
dependence of these characteristics on the cross-field ampli-  
tude were obtained. The supposition is expressed that the  
charges captured at the "slow" levels at the surface have a  
considerable influence upon the characteristics of the surface  
recombination levels. From this supposition is deduced that  
the nature of the recombination levels occurring because of

Card 1/2



Investigation of the Energy Levels and of the  
Effective Capture Cross Sections of the Surface  
Recombination Levels in Germanium

SOV/57-58-12-1/15

heating in vacuum is the same as the nature of the levels  
caused by the action of ozone. A considerable parallelism  
between concentration and charge of "slow" surface levels and  
the concentration of the recombination levels was found.  
There are 9 figures, 2 tables, and 10 references, 3 of which  
are Soviet.

ASSOCIATION: Fizicheskii institut imeni P. N. Lebedeva AN SSSR Moskva  
(Physics Institute imeni P. N. Lebedev, AS USSR, Moscow)

SUBMITTED: December 28, 1957

Card 2/2

1. PAVLOV, N. K.
2. USSR (500)
4. Electric Substations
7. Shortcomings of 3-6-10 Kv standard transformer substations and all circuit breakers. *Elektr. stantsii*, no. 12, 1952.

Lists and discusses 9 uneconomical features and other design deficiencies in plans for series of standard 3-6-10-kv transformer substations developed by Giproshakhtoprojekt of Ministry of Coal Industry. Lists plans submitted in response for the deficiencies listed.

9. Monthly List of Russian Accessions, Library of Congress, March 1952. Unclassified.

PAVLOV, N.M.; VLADIMIROVA, Ye. F.

Effect of sleep therapy of function of the visual organ. Vest. oft.,  
Moskva 31 no. 5:13-17 Sept-Oct 1952. (CML 23:3)

1. Professor for Pavlov; Departmental Physician for Vladimirova. 2.  
Of the Eye Clinic of Stavropol' Medical Institute.

PAVLOV, N.M.; MOLCHANOVA, L.A.

Damages of the visual organs in children in rheumatism. Vest. oft.,  
Moskva 32 no.4:14-21 July-Aug 1953. (CML 25:1)

1. Professor for Pavlov; Departmental Physician for Molchanova. 2. Of the  
Clinic for Eye Diseases of Stavropol' Medical Institute.

PAVLOV, N.M., professor

~~www.scribd.com~~

Studies on reactivity of the organism in glaucoma. Vest.oft.  
33 no.3:5-14 My-Je '54. (MLRA 7:6)

1. Direktor glaznoy kliniki Stavropol'skogo meditsinskogo  
instituta.

(GLAUCOMA, physiology,

\*reactivity of organism in)

PAVLOV, N.M., professor.

Medical tactics in ophtalmology. Trudy AN Tadzh. SSR 40:65-70 '55.

(MIRA 9:10)

1. Zavednyshchiy kafedroy glaznykh bolezney Stavropol'skogo meditsinskogo instituta (dir.- prof. V.A. Chepurin).

(OPHTHALMOLOGY) (MEDICINE--PRACTICE)

PAVLOV, E.M., professor

"Acute epidemic conjunctivitis." M.M.Zolotareva. Reviewed by E.M.  
Pavlov. Vest.oft. 69 no.3:44-45 My-Je '56. (MLRA 9:8)  
(CONJUNCTIVITIS) (ZOLOTAREVA, M.M.)

PAVLOV, N.H., doktor med.nauk, prof. (Stavropol' na Kavkaze)

Ocular leprosy. Vest.oft. 71 no.1:10-14 Ja-P '58.

(MIRA 11:3)

(LEPROSY

ocular)

(EYE DISEASES

leprosy)



PAVLOV, N.M., prof.

"Ophthalmological diagnosis; with an atlas of ophthalmology"  
Vest.oft. 71 no.1:57-58 Ja-F '58. (MIRA 11:3)  
(EYE--DISEASES AND DEFECTS) (DIAGNOSIS)  
(RADZIKHOVSKII, B.L.)

PAVLOV, N.M., prof. (Stavropol')

Bulgarian ophthalmology and ophthalmologists. Vest.oft. 72 no.1:  
59-61 Ja-P '59. (MIRA 12:2)  
(OPHTHALMONOLOGY,  
in Bulgaria (Rus))

PAVLOV, N.M.

Polyclinic care in Tashauz Province. Zdrav. Turk. 4 no. 3:41-44.  
My-Je '60. (MIRA 13:10)

1. Zaveduyushchiy orgmetodkabinetom Tashauzskoy oblastnoy bol'nitsy.  
(TASHAUZ PROVINCE—MEDICAL CARE)

PAVLOV, N.M.

Use in ophthalmological practice of live antiplague vaccine prepared  
from strains EB and I-17. Vest. oft. 73 no. 4:11-15 J1-Ag '60.

(MIRA 14:1)

(PLAGUE) (EYE--DISEASES AND DEFFCTS)

PAVLOV, N.M.

Efficient composition of the H<sub>2</sub>O glass. Step. 1. Rep. no. 9:42-43  
S 165. (May 18:9)

L 12924-66 (A) EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD/WW/GG  
ACC NR: AP6000182

SOURCE CODE: UR/0032/65/031/012/1450/1451

AUTHOR: Iglitsyn, M. I.; Ivanova, I. I.; Konstantinova, G. Ye.; Kosaganova, M. G.; Pavlov, N. N.

ORG: State Scientific Research and Design Institute of Rare Metals Industry (Gosudarstvennyy nauchno-issledovatel'skiy i proektnyy institut redkometallicheskoj promyshlennosti)

TITLE: Determination of nitrogen content in  $\alpha$ -SiC by EPR technique <sup>21,44,55</sup>

SOURCE: Zavodskaya laboratoriya, v. 31, no. 12, 1965, 1450-1451 <sup>172</sup>  
<sub>B</sub>

TOPIC TAGS: silicon carbide, EPR, Hall effect, nitrogen, single crystal

ABSTRACT: An attempt was made to use EPR technique for determining nitrogen content in single crystals of hexagonal silicon carbide ( $\alpha$ -SiC). The method is based on determining the number of paramagnetic centers (nitrogen atoms) in a crystal sample by comparing its EPR spectrum with the spectrum of a reference sample ( $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ ). Both spectra were taken at the liquid nitrogen temperature with a PE 1301 radiospectrometer. The relationship between the concentration of the free charge carriers at room temperature as determined from the Hall effect ( $n_{\text{Hall}}$ ) and the concentration of non-compensated and non-ionized nitrogen centers at the liquid nitrogen temperature ( $n_{\text{EPR}}$ ) is:  
 $n_{\text{EPR}} = 4.87 n_{\text{Hall}}$ . All the experimental results obtained with silicon carbide samples

Cord 1/2

UDC: 543.42

I 12924-66

ACC NR: AP5000182

with various nitrogen contents are to the right of the  $N_{EPR} = 4.87 n_{Hall}$  line (see fig. 1). This indicated that EPR technique gives only the concentration of the non-compensated nitrogen centers while the technique based on the Hall effect is indiscrimina-

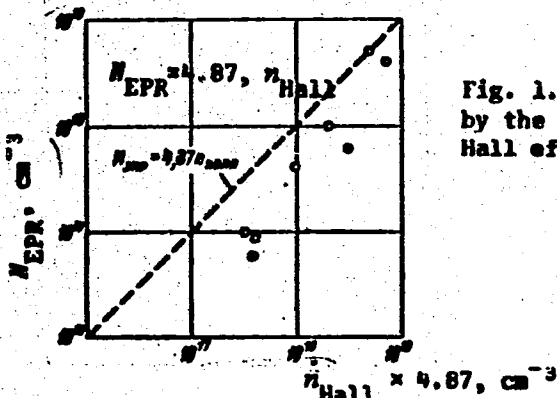


Fig. 1. Comparison of the results obtained by the EPR technique and on the basis of Hall effect.

tive (gives all non-compensated ionized donor centers). The accuracy of the EPR technique is better by one-half of an order of magnitude. The EPR technique is recommended as a rapid method of determining nitrogen content in silicon carbide crystals.

Orig. art. has: 2 figures, 1 table.

SUB CODE: 0720/ SUBM DATE: 00/

ORIG REF: 001/

OTH REF: 001

Card 2/2

PAVLOV, N.M.

Glass furnace for simultaneous manual and mechanized  
production. Stek. i ker. 23 no.1:39-40 Ja '66.

(MIRA 19:1)



FAVOR, Rikha; Ikhayevich; AYER, MEYER, Ya., ed.

[Leprosy of the eye; clinical aspects and treatment.  
Lepra organa zrenila; klinika i lechenie. Moskva,  
Meditsina, 1964. 175 p. (MIRA 1719)]

PAVLOV, N. N., Aspirant

"Analysis of and Measures to Promote Electrical Safety During the Use of  
Excavators Under Conditions Prevailing in Coal Pits." Cand Tech Sci, Moscow  
Order of Lenin Power Engineering Institute V. N. Molotov, 3 Dec 54. (V.,  
23 Nov 54)

Survey of Scientific and Technical Dissertation Defended by USSR Higher  
Educational Institutions (11)

SC: Sum. No. 521, 2 Jun 55

*PAVLOV, N.N.*

PAVLOV, N.N., kand. tekhn. nauk.

Arc-suppression coils used in high-voltage networks in the Czechoslovak Republic. Vest. elektroprom. 27 no.8:75-76 Ag '56.

(MLRA 10:9)

1. Moskovskiy energeticheskiy institut im. Molotova.  
(Czechoslovakia--Electric coils)

110-9-12/23

AUTHOR: Kopylov, I.P., Candidate of Technical Sciences,  
Pavlov, N.N., Candidate of Technical Sciences  
TITLE: ~~A Method of~~ Regulating the Inductance of Grounding Coils.  
(Sposob regulirovaniya induktivnosti zazemlyayushchikh katu-  
shek)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, Vol.28, No.9,  
pp. 46 - 47 (USSR).

ABSTRACT: Grounding (or compensating) coils are becoming more widely used and recently they have been applied to mobile electrified machines supplied through cables such as excavators orelectric tractors. The principles and advantages of compensating the capacitative component of fault current are briefly explained. The inductive reactance of the coil should equal the capacitative reactance of the lines, but as the capacitance of the system is continually varying, the coil should be adjustable for complete compensation under all operating conditions. The simplest solution is to instal on each part of the circuit a compensating coil, tuned to resonance and switched with the line. However, even in this case the individual coils will have to be adjustable. Adjustment may be by altering: the number of turns; the air gap; the relative position of the coils; the inductance of the coil by auxiliary magnetisation. Tapped coils can only be  
Card 1/3 adjusted in steps and tap-changing switches are bulky and